POLYESTERS FOR EXTRUSION BLOW MOLDING

ABSTRACT

Disclosed is a process for the manufacture of shaped articles by extrusion blow molding comprising the steps of (1) extruding a copolyester through a die to form a tube of molten copolyester; (2) positioning a mold having the desired finished shape around the tube of molten copolyester; and (3) introducing a gas into the tube of molten copolyester, causing the extrudate to stretch and expand to fill the mold; wherein the copolyester is a linear, copolyester having an inherent viscosity (IV) of at least about 0.7 dL/g measured at a temperature of 25°C at 0.5 g/dL concentration in a solvent mixture of symmetric tetrachloroethane and phenol having a weight ratio of symmetric tetrachloroethane to phenol of 2:3 and comprising:

(1) a diacid component consisting essentially of 90 to 100 mole percent terephthalic acid residues and 0 to about 10 mole percent isophthalic acid residues, naphthalenedicarboxylic acid residues, biphenyldicarboxylic acid residues or a combination of 2 or more of isophthalic, naphthalenedicarboxylic or bipheyldicarboxylic acid residues; and

(2) a diol component consisting essentially of about 70 to 90 mole percent 1,4-cyclohexanedimethanol residues and about 30 to 10 mole percent neopentyl glycol residues;

wherein the copolyester comprises 100 mole percent diacid component and 100 mole percent diol component. The process is particularly useful for the manufacture of bottles or carboys having and interior volume of about 2 to 50 liters.